

SECTION 5 - 1 REVIEW

PASSIVE TRANSPORT

VOCABULARY REVIEW Explain the relationship between the terms in each of the following pairs of terms.

1. concentration gradient, diffusion _____

2. osmosis, turgor pressure _____

3. hypertonic, plasmolysis _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Substances that can pass through cell membranes by diffusion include
 a. Na^+ ions. b. Cl^- ions. c. glucose. d. oxygen.

- _____ 2. The contractile vacuole of a paramecium should be active when the paramecium is in
 a. an isotonic environment. c. a hypertonic environment.
 b. a hypotonic environment. d. any environment.

- _____ 3. When a human red blood cell is placed in a hypotonic environment, it will
 a. undergo cytolysis. c. experience a decrease in turgor pressure.
 b. undergo plasmolysis. d. be at equilibrium.

- _____ 4. Facilitated diffusion is often used to transport
 a. ions. c. molecules that are not soluble in lipids.
 b. water. d. molecules that are too small to diffuse
 across the membrane.

- _____ 5. Na^+ ions enter cells by
 a. diffusing across the lipid bilayer
 without assistance. c. binding to Na^+ carrier proteins.
 b. diffusing through Na^+ ion channels. d. binding to Cl^- ions.

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SHORT ANSWER Answer the questions in the space provided.

1. What happens to the movement of molecules at equilibrium? _____

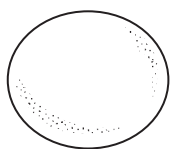
2. How do carrier proteins transport substances across cell membranes? _____

3. What types of stimuli can cause the gates on ion channels to open or close? _____

4. **Critical Thinking** How does the interaction between a carrier protein and the substance it transports resemble the interaction between an enzyme and its substrate? _____

STRUCTURES AND FUNCTIONS The drawings below show the appearance of a red blood cell and a plant cell in isotonic, hypotonic, and hypertonic environments. Label each environment in the spaces provided.

RED BLOOD CELL

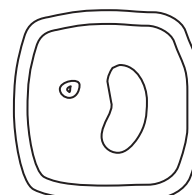
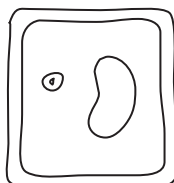
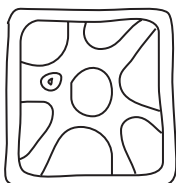


a _____

b _____

c _____

PLANT CELL



d _____

e _____

f _____